Extensive Reading and EFL Learning Motivation at Muroran IT

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Abstract: This paper describes an ongoing study evaluating the motivational effect of graded readers and extensive reading on Japanese engineering students learning English as a Foreign Language (EFL). The study evaluates attitudes and motivational orientations towards graded readers following a semester-long reading class which required learners to read extensively and take online quizzes via the Moodle Reader Module. Motivational orientations were assessed using the Graded Reader Instructional Materials Motivational Survey (GR-IMMS), a questionnaire comprised of adapted scales from Keller’s (2010) Instructional Materials Motivational Survey (IMMS) and open-ended items. Results of 270 (n=270) completed surveys indicated that the majority of learners positively endorsed extensive reading and the online evaluation system, and that content features, genre and text characteristics influenced learners’ perception of texts. Each of the cognitive variables examined in the GR-IMMS scales were also positively endorsed. The implications of these findings are discussed as they relate to Japanese engineering students learning EFL.

Key words: motivation, extensive reading, instructional materials evaluation

1. Introduction

While English as a Foreign Language (EFL) has traditionally been a required subject for Japanese tertiary learners in liberal arts or business departments, it has increasingly become a compulsory part of science and technology undergraduate programs in that country as well. These requirement reflect a number of related trends, including: the growing importance of English as a lingua franca for science and technology, an increasing move towards internationally accredited credentials, and Japanese governmental policies promoting English as means to foster commerce, research and international understanding (Crystal, 2003; Kishimoto, 2013; Mok, 2006).

With the expansion of the English curriculum, EFL instructors teaching engineering
majors have encountered a number of challenges associated with this particular population of learners, including their lower proficiency and interest in English, and the somewhat distracting role English plays in competing for time with engineering studies (Johnson, 2013; Koga, 2010; Kuwabara, Nakanishi, & Koma, 2005). These characteristics, combined with other cognitive and affective variables observed to play a role in the demotivational states in Japanese tertiary EFL learners (Berwick & Ross, 1989; Burden, 2002; Falout & Maruyama, 2004; Saito, 2007), contribute to the challenge of teaching EFL to Japanese engineering students.

In order to better meet and address the particular needs of specific populations of language learners, researchers have examined the role classroom factors play in facilitating learning. One important classroom factor that has been identified to directly affect learners is instructional materials. In particular, instructional materials have been identified as having motivating and demotivating influences on learners (Chambers, 1998, Falout & Maruyama, 2004; Gorham & Millete, 1997; Peacock, 1997). Earlier studies conducted by the author have indicated that Japanese engineering students respond distinctively to different genres of instructional materials, and to their specific characteristics (Johnson & Johnson, 2012). The latter were found to be particularly evident in reading classes in which learners read extensively from self-selected graded readers (Johnson 2014a, 2014b). These findings concur with other studies which found that foreign language learners’ attitudes, degree of enjoyment, and level of interest were positively affected by reading extensively with graded readers (Al-Homoud & Schmitt, 2009; Cho & Krashen, 2001; Critchley, 1998; Dupuy, 1997; Forrest, 1997; Hayashi, 1999; Iwahori, 2008; Mason & Krashen, 1997; Powell, 2005; Robb & Susser, 1989; Tanaka & Stapleton, 2007).

This study endeavors to expand upon previous research in this area, and on prior research conducted by the author, by further examining the motivational influence of graded readers and extensive reading (ER) on Japanese engineering students’ EFL learning motivation. The ultimate of goal of this research is to identify instructional materials that appeal to the target population of learners, and to better understand how their constituent characteristics contribute to their motivational appeal.

2. Study overview

Japanese engineering students have been described as reluctant language learners (Nishizawa, Yoshioka, & Fukuda, 2010). One possible means of overcoming this reluctance, and to promote higher levels of motivated engagement, is through providing such learners with instructional materials that appeal directly to their needs, levels, and interests. The range of levels and content within graded reader series, and the self-selectivity aspect of extensive reading, suggest that they might serve to provide greater appeal to segments of EFL learners such as Japanese engineering students.
In order to evaluate Japanese engineering students’ motivational orientations towards ER and graded readers a retrospective evaluation of a semester-long ER class was conducted. In the class, participants were required to read self-selected graded readers extensively, and take quizzes online through the Moodle Reader Module. Data were collected from concurrent cohorts of participants over two consecutive years in which the reading class was offered. It was thought that the retrospective evaluation of the materials and system used in class would provide insight into the types and characteristics of graded readers students found motivating, as well as other aspects of the course design that either facilitated or impeded motivated behavior. The following research questions reflect these goals and guided this inquiry.

RQ1: How did learners perceive the use of graded readers and the online evaluation system?
RQ2: In what ways did the use of graded readers and the online evaluation system affect learner motivation?
RQ3: What specific characteristics of graded readers contributed to their motivational appeal?

3. Methods
3.1 Data collection and analysis

Data collection was carried out with the Graded Reader Instructional Materials Motivational Survey (GR-IMMS), a questionnaire comprised of scales adapted from Keller’s (2010) Instructional Materials Motivational Survey and additional open-ended items (see Appendix 1). Like the IMMS, the GR-IMMS measures attitudes, relevance, confidence, and satisfaction components of instructional materials according to Keller’s ARCS model of motivation (Keller, 2010). These scales have been demonstrated to be effective in evaluating motivation across a wide range of educational contexts and with a variety of different instructional materials (Bollinger, Supanakorn, & Boggs, 2010; Corbalan, Kester, & Van Merrienloer, 2009; Jakobsdottir & Hooper, 1995; Pittenger & Doering, 2010; Rodgers & Winthrow-Thorton, 2005). The GR-IMMS scales were rewritten and adjusted to better assess the specific characteristics of graded readers. The GR-IMMS has been trialed and validated in previous studies where it has been demonstrated to have good internal reliability (Johnson, 2014a, 2014b). The GR-IMMS also contained a section of open-ended items which inquired about learners’ impressions of graded readers and the online system, and the specific characteristics influencing perceptions of graded readers. An open-ended format was chosen for these items due to the range and variability of responses it can elicit. It was hoped that such data would provide deeper insights into the range of impressions and characteristics that contributed to learners’ experiences using the graded readers and the online evaluation system.

The questionnaire was administered in the final week of a fifteen-week semester and required ten to fifteen minutes to complete. A total of 284 questionnaires were collected, of
which 270 (N=270) were retained for analysis. Questionnaires that were discarded were those that were either incomplete or not appropriately filled out. Of the questionnaires retained for analysis, all had completed GR-IMMS sections, while open-ended items were filled out selectively by participants. GR-IMMS results were then entered into Predictive Analytics Software (PASW) version 18 to derive descriptive and inferential statistics. Open-ended item responses were translated into English, and responses to each item were coded and separated into themes. Following first round coding, themes were revised and re-organized with input from a colleague.

3.2 Participants

All participants were second-year Japanese engineering majors with specialties in applied chemistry and mechanical engineering. A total of 284 (n=284) students filled out questionnaires, although the data represents responses from 270 (N=270) completed questionnaires. The participants were of mixed English ability, although the majority was at a low-intermediate reading level. The reading class represented one of eight mandatory EFL classes students were required to complete as part of their general humanities requirements for their Bachelor of Engineering degrees.

4. Results

4.1 GR-IMMS results

Results of the IMMS indicated positive overall endorsement of the four scales used in the questionnaire (see Table 1). The most highly endorsed scale was Satisfaction (SAT), with a mean of 3.36 derived from the five-point Likert scale items. This was followed by Confidence (CON) (M=3.29), Attention (ATT) (M=3.01) and Relevance (REL) (M=3.17). The Cronbach’s alpha for each scale (CON \( \alpha = .71 \); ATT: \( \alpha = .82 \); REL: \( \alpha = .79 \) and SAT: \( \alpha = .80 \)) indicated good internal reliability for each. While SAT was the most highly endorsed overall, its average range of 2.81 to 3.75 indicates a range of variability in responses.

Results of individual IMMS items are provided in Table 2. Two of the top five most highly endorsed items were from the SAT scale (SAT6 M=3.70; SD=1.02; SAT 1 M=3.57; SD=1.09) and ATT scale (ATT5 M=3.52; SD=.98; ATT4 M=3.50; SD=.98), while the second highest was from the CON scale (CON4 M=3.59; SD=1.03). Three of the least endorsed items were from the ATT scale (ATT 8 M=3.01; SD=.82; ATT2 M=3.05; SD=1.01; ATT6 M=3.07; SD=.95), while SAT2 (M=2.81; SD=1.05), REL3 (M=2.75; SD .96), and CON2 (M=3.07; SD=1.03) were also among the least endorsed individual items.

Table 1: Graded Reader IMMS Scale Summary
The direction and strength of relationships between scales was investigated using Pearson product-moment correlation coefficient. Results indicated positive correlations between all scales (Table 3), with correlations falling between the \( r = .50 \) to \( r = 1.0 \) range being indicative of a strong positive relationship (Cohen, 1988). These findings reflect the high correlational relationships between IMMS scales observed in other studies (Keller, 2010).

Table 3: Pearson product-moment correlation between GR-IMMS scales


### 4.2 Open-ended item results

#### 4.2.1 Overall impressions of graded readers

The first open-ended question was: “How did you feel about using graded readers?” A total of 211 responses were received for this item. The majority of responses were positive (78.6%: n=166), while 29, or 13.7%, were negative (see Table 4). The remainder of responses were either mixed (n=12: 5.6%), with students expressing mixed positive and negative feelings, or ambivalent (n=8: 1.8%), with such participants expressing that they had no particular feelings using graded readers. The most frequent positive results were associated with feelings of achievement or English improvement (n=29). Examples from this category of responses included “Reading every day made me feel like my English improved” (S255) and “It was very difficult at the beginning, but I got better at reading from the middle of the semester” (S63). Choice of content and book level was the second most positively endorsed aspect of the course, as exemplified by the response “I thought it was good, choosing books that matched my interest and level” (S110). Another highly endorsed aspect of the course was its perceived enjoyability (n=22). A sample of this type of response was “It was really fun, I enjoyed reading the books, all the different kinds of stories” (S59). A further area positively endorsed was “confidence” (n=18) where participants described increasing confidence the more they read, and with the more quizzes they passed. Two examples of this type of response were “I had absolutely no confidence in English, but this class really made me feel I can read because I could read a lot at my level. My confidence went up” (S20), and “It was difficult at the beginning, but I gained confidence the more I read. Passing the quizzes gave me confidence” (S73). The novelty aspect of this course also appeared to be a positive factor for learners, with 14 (N=14) participants describing the course as a new and unique experience, as expressed in the following sample response, “it was a new style class, I really haven’t had the chance to read English books, so I thought this was a good experience for me” (S80). Receiving the same number of responses was “other transformation”, which describes other types of personal transformation that occurred in learners beyond the changes in improvement and confidence described above. Such transformations included an increased interest in reading: “I tried hard to get the word count I needed, but I found I became more and more interested in the books and reading the more I read” (S179), or an
increase in interest in English in general: “At first I didn’t want to do it, but after reading some books, now I feel I’m more interested in English” (S44).

The first open-ended item received comparatively fewer negative responses (N=29). The most common category of negative response came from those who perceived the graded reader course as being difficult (n=18). Examples of this type of response included “it wasn’t interesting for me, reading those books was difficult” (S110), and “It was too difficult to read every week” (S135). A number of participants also negatively endorsed the class style. One example of this type of response was, “This kind of class was a pain, I’d prefer a normal class more” (S22). The final category of negative response came from those who stated that they had no interest in, or disliked, studying English (n=5). These feelings appeared to extend to extensive reading and the use of graded readers, as illustrated in the response “I don’t really like English so I didn’t like doing it (reading and the online quizzes) at all” (S27).

Table 4: Open-ended item 1: Summary of positive & negative responses

<table>
<thead>
<tr>
<th>Positive (n=166)</th>
<th>Negative (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>achievement/improvement n=29</td>
<td>Difficult n=18</td>
</tr>
<tr>
<td>choice n=26</td>
<td>Didn’t like class styles: n=8</td>
</tr>
<tr>
<td>enjoyment: n=22</td>
<td>Not interested, don’t like, English n=5</td>
</tr>
<tr>
<td>confidence: n=18</td>
<td></td>
</tr>
<tr>
<td>novelty n=14</td>
<td></td>
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<tr>
<td>other transformation n=14</td>
<td></td>
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<tr>
<td>learning appeal n=12</td>
<td></td>
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<tr>
<td>opportunity n=11</td>
<td></td>
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<tr>
<td>class style n=10</td>
<td></td>
</tr>
<tr>
<td>promote specific skills n=8</td>
<td></td>
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<tr>
<td>other positive responses n=22</td>
<td></td>
</tr>
</tbody>
</table>

4.2.2 Preferred graded reader types

The second open-ended item inquired about the types graded readers participants preferred using. Responses fell into four categories: content features, genre, structural or lay-out characteristics, and publisher type or series (see Table 5). The five most frequent responses from each category will be discussed below.

The most frequently identified type of reader preferred was that with content features that appealed to learners (n=135). Participants particularly liked books that they perceived to be easy (n=38). They also identified readers that matched their personal interests (n=34) as being particularly appealing. Students mentioned graded readers with stories or themes involving such topics as soccer, opera, chess, and airplanes as being particularly appealing due to their appeal to their specific interests. The third most frequently cited content feature that appealed to learners was familiarity in terms of story content (n=22). With such responses learners mentioned particularly liking reading stories they already knew such as Huckleberry Finn or Sherlock Holmes as it was easier for them to self-monitor their understanding of the story. The next most
frequently cited content features liked by learners were understandability (n=9) and daily life (n=7). Responses in the understandability category described readers with storylines, particularly character interactions, which were easy to follow, while “daily life” described readers which provided a glimpse into day-to-day activities such as work or school in other countries.

The second most frequently cited attribute of preferred graded readers was genre (n=95). Movie-related graded readers (n=24) were the most popular with students, with a number indicating that they liked being able to check comprehension and compare movie-based graded readers with movies they had previously watched, or alternatively, to watch movies after reading to check their comprehension. The second most frequently cited genre was fiction (n=15), with students explaining that they liked following stories and their plots. This was followed by mystery-themed graded readers (n=14), about which learners expressed a keen interest in trying to solve the mystery as they read. The fourth most popular genre was non-fiction (n=8). Within this category learners described books about real places, businesses and events as particularly valuable in providing knowledge. The fifth most preferred genre was biographies (n=6). Learners expressed interest and excitement in reading details about famous people’s lives. Like non-fiction books, biographies appeared to appeal in terms of their inherent interest as well as their general knowledge value.

Participants also described preferred graded readers in terms of their specific layout or design “characteristics” (n=38). A number of students (N=14) identified pictures or illustrations as playing an important role in influencing their degree of enjoyment with readers. Student 87 even went as far as identifying what he perceived to be the optimum number of pictures a graded reader should have, “…if there were pictures every two pages or so, it really made the book more interesting; I could use the pictures to imagine the story”. Another important characteristic was length, with both short (n=7), and long (n=4), books appealing to different students. Those who liked short books liked being able to read them quickly and effortlessly, and being able to complete their quizzes easily on the Moodle Reader Module. Those who preferred longer readers described enjoying following the flow and development of more drawn out stories and characters. A number of participants (n=5) also identified the printed word count on the backs of books as a characteristic that contributed to their enjoyment of graded readers. Such students explained that choosing books according to their word count allowed them to set weekly goals and read according to their own schedules. A final characteristic positively affecting students impressions of readers was their variety (n=4); that is their distinct visual appeal and presentation from book to book, series to series, and publisher to publisher. Students who identified this characteristic described enjoying going to the library and choosing from a wide variety of book covers and surveying the layout, content and presentation of readers prior to selection.

Table 5: Open-ended item 2: Attributes of preferred readers
A number of students (n=12) also identified preferred books by specific publishers. The most popular books type in this category were those in the Cengage Foundations series (n=8). Graded readers from other publishers specifically identified by learners were those from MacMillan (n=2) and Penguin (n=2). Where graded readers from these specific publishers were identified, participants did not add any explanatory insights into why such series were preferred, although it is likely that such books represented the preferred content features, genres and characteristics identified above.

4.2.3 Disliked graded reader attributes

The third open-ended item asked participants what types of graded readers they disliked. The same three categories as above emerged, although with a slightly different order of frequency: content features (n=62), reader characteristics (n=36), and genres (n=31). The content characteristic most frequently cited as having a negative effect on learners’ perception of graded readers was “hard to follow” (n=24). Learners explained that readers with storylines that were difficult to follow, had too many characters, or dialogue that was hard to attribute to specific characters, contributed to negative impressions of particular books. The second most cited disliked reader characteristic was “difficult” (n=18). A number of learners explained that they didn’t like books that were more difficult than they anticipated, and felt frustrated when this difficulty resulted in them not being able to pass the reader’s online quiz. Another content characteristic that negatively influenced learners’ impressions of particular graded readers was their perceived degree of “darkness” (n=9). Dark stories were described as being particularly violent, morbid, or depressing. An equal number of participants (n=7) disliked readers they perceived to be “uninteresting”. Such students explained that both readers that did not match their own interests, as well as those that seemed dull, were particularly disliked. Unfamiliarity was another characteristic that negatively influenced learners’ (n=3) perception of particular readers. Students explained that a lack of familiarity with particular stories and situations made it
more difficult to contextualize and follow some stories.

Learners also disliked graded readers with particular layout or design characteristics. Within this category the most disliked feature (n=11) was a lack of pictures or illustrations. Participants who disliked such books explained that they were harder to engage and follow without pictures related to the story. Receiving the same number responses (n=9) were graded readers which were too easy or too short. Students who disliked this kind of graded reader explained that such books were so underdeveloped, and had such low word counts, that they were perceived to have essentially no real value. A similar number of students (n=8) identified long books as being among those they disliked. Reasons cited for this were the difficulty in staying focused over their entire length and in passing their online quizzes. A further characteristic of books that was evaluated negatively was “tight layout” (n=7). These were described as graded readers with lines that were too close together. Participants explained that pages with a tight layout were hard on their eyes and difficult to read.

Participants also described a dislike for graded readers of particular genres. The most frequently cited disliked genre was biographies (n=8), which some learners described as not being as well-developed or interesting as fiction. These same reasons were also cited by a number of students who disliked non-fiction (n=6) and historical (n=5) genres. In both cases several learners also described a preference for fiction. Other genres identified as disliked were mystery (n=3) due to the difficulty in following some of the stories, traditional stories such as fables and folk tales (n=3) due to their uninteresting stories, and horror stories (n=3) due to their dark or unsettling content.

5. Discussion

The first objective of this study was to examine learners’ overall perception of graded readers. Data collected from the first open-ended item indicated that learners had an overall positive impression of learning English with graded readers and the online evaluation system. These results reflect earlier findings with smaller samples of Japanese engineering students learning EFL in a similar educational context (Johnson, 2014a, 2014b). As this particular
segment of learners has been identified as being “reluctant” in regard to language learning (Nishizawa, Yoshioka, & Fukuda, 2010), this result is encouraging as it provides hope that such positive attitudes towards instructional materials and procedures might result in increased engagement and improvements in learning outcomes (as seen in Bahous, Bacha, & Nabhani 2011; Christophel & Gorham, 1995; Gorham & Christophel, 1992; Meshkat & Hassani, 2012; Williams, Burden, & Al-Baharna, 2001).

The second goal of this paper was to evaluate how the use of graded readers and the online evaluation system influenced learner motivation. The overall positive endorsement of all scales within the GR-IMMS indicated that the graded readers and the online evaluation system appealed cognitively to learners in a manner supporting motivational engagement. High endorsement of items from the satisfaction scales (SAT m=3.36), when viewed with the first open-ended item’s endorsement of achievement/improvement, indicated that achievement motivation needs were satisfied. These findings reflect those of other studies which also found that learners felt that their FL skills improved after taking part in graded reader courses (Bell, 2001; Constantino, 1995; Horst, 2005; Horst, Cobb & Meara, 1998). The high frequency of selectivity as a reason for positively endorsing the course suggests that expectancies were met as learners found that the readers they selected satisfied their short-term goals. These are important results as expectancy and satisfaction of proximal goals has been tied to achievement (Wigfield, 1994; Wigfield & Eccles, 1992). Although this type of achievement motivation has been said to be inferior to mastery-oriented motivation (Ames, 1992), for learners without a clear intrinsic interest in the foreign language the extrinsic motivation to read within the achievement framework in this type of class provides an initial impetus for engaging English books. As seen in a number of the open-ended responses, this motivation can give way to a more intrinsic orientation. This sentiment is reflected in the following responses to the first open-ended item, “At first I tried hard to get the word count I needed, but I found I became more and more interested in the books the more I read” (S179). Another encouraging motivational finding was the high endorsement of the confidence items. This endorsement, combined with students’ strong preference for easy books as described in the open-ended item results, suggests that self-selection of books according to self-perceived ability supported students’ learning confidence. Self-efficacy is a key component for initiating and sustaining learner motivation in that learners who think they will be successful are more likely to initiate and carry through with positive learning behaviors (Pintrich & Schunk, 2002). As self-selected graded readers appear to promote confidence in learners, they should be promoted for use with this segment of learners, particularly considering the low levels of FL learning confidence generally present in Japanese EFL learners (see Johnson 2009).

The final objective of this study was to identify which types of graded readers learners
liked using. The number of types of graded readers identified as being “liked” was over twice as many as those “disliked”. Within the sample used in this study it was clear that content features that aligned with learners’ skills and interests were perceived to be most preferred. A range of genres, from movies, to fiction, to mystery were also demonstrated to be attractive to learners, as were the physical layout and presentation features of the texts themselves such as illustrations, length, and featured word counts. The range of responses provided, with 34 specific types identified across four thematic areas, speaks to the variability of preferences in learners. This range demonstrates that EFL programs utilizing graded readers need a wide selection of titles in order to meet the varying interests and learning style preferences of learners (Day & Bamford, 1998; Murphy, 1987).

6. Conclusion

This study demonstrated that graded readers used in conjunction with an online evaluation system represent a positive curricular alternative for Japanese engineering students learning EFL. The positive endorsement of the satisfaction, confidence, relevance, and attention GR-IMMS scales indicated that graded readers combined with online evaluation appealed cognitively to learners in a manner that supported motivational engagement. These findings were supported by the open-ended items with learners expressing satisfaction with the improvement they achieved in the course, greater confidence from using self-selected readers according to perceived proficiency levels, increased perceived relevance derived from the selection of content congruent with personal interests and learning style preferences, and heightened attention due to a combination of factors including the novelty of learning and engaging English in a new manner. Despite these positive findings, the limitations of this study need to be acknowledged. The situation-specific nature of evaluating learners' motivational orientations toward a particular set of instructional materials or a specific course design may limit the generalizability of the results. Despite these reservations, the potential benefits of using graded readers and autonomous online evaluation systems represent a positive curricular alternative for reluctant EFL learners such as Japanese engineering students.

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REFERENCES


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